

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/AU03/01202

**A. CLASSIFICATION OF SUBJECT MATTER**

Int. Cl. ?: C12Q 1/68; C12N 15/12

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

SEE ELECTRONIC DATABASE BOX BELOW

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
SEE ELECTRONIC DATABASE BOX BELOWElectronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
[WPIDS] [CA] [MEDLILNE] [FILE REGISTRY] ACTININ; ALPHA-ACTININ; ACTN 3; ACTN3; ALPHA ACTININ 3; ALPHAACTININ 3; ATHLET?; PERFORM?; MUSCLE; SPORT?; POWER; SNP; POLYMORPHISM; GENOTYPE; MUSCUL?; MUTANT; MUTAT?**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	Vainzof M, Costa CS, Marie SK, Moreira ES, Reed U, Passos-Bueno MR , Beggs AH and Zatz M (1997). Deficiency of $\alpha$ -Actinin-3 (ACTN3) occurs in different forms of muscular dystrophy. Neuropediatrics 28:223–228.  A See the entire document.	1–32
A	North KN, Yang N, Wattanasirichaigoon D, Mills M, Easteal S and Beggs AH (1999). A common nonsense mutation results in $\alpha$ -actinin-3 deficiency in the general population. Nature Genetics 21:353–354.  A See the entire document.	1–32

Further documents are listed in the continuation of Box C       See patent family annex

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search  
21 October 2003Date of mailing of the international search report  
27 OCT 2003Name and mailing address of the ISA/AU  
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<b>C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
<b>Category*</b>	<b>Citation of document, with indication, where appropriate, of the relevant passages</b>	<b>Relevant to claim No.</b>
A	Mills MA, Yang N, Weinberger RP, Vander Woude DL, Beggs AH, Easteal S and North KN (2001). Differential expression of the actin-binding proteins, $\alpha$ -actinin-2 and -3, in different species: implications for the evolution of functional redundancy. Human Molecular Genetics 10(13):1335–1346.  See the entire document.	1–32
P X	Yang N, MacArthur DG, Gulbin JP, Hahn AG, Beggs AH, Easteal S and North K (2003). <i>ACTN3</i> genotype is associated with human elite athletic performance. American Journal of Human Genetics 73:627–631.  See the entire document.	1–32
P X	Zanoteli E, Lotuffo RM, Oliveira ASB, Beggs AH, Canovas M, Zatz M and Vainzof M (2003). Deficiency of muscle $\alpha$ -actinin-3 is compatible with high muscle performance. Journal of Molecular Neuroscience 20:39–42.  See the entire document.	1–32